

# M.O.T.D.

The OS-9 Users Group Newsletter

Issue #2, 1995

## Inside:

From the President	- Page 1
Editor's Log	- Page 4
Straight from the Horse's Mouth	- Page 5
Entry Level C	- Page 8
The Toolbox	- Page 10
The OS-9 Users Group Sourcebook	- Page 13
Vendor Listings	- Page 15
BBS Listings	- Page 15
OS-9 Periodicals	- Page 16

## From the President

First, let me say hello to any industrial users seeing the MOTD for the first time. Complimentary copies of this issue are being send out to you as an introduction to the Users Group. We support OS-9 in all its forms, including OS-9/6809, OS-9/68000, and OS-9000.

Thank you to the members for your comments about the last issue! Please do keep the feedback coming. The contact information is inside the front cover. In general, the comments were favorable. Only major complaint was about the small fonts in some articles (guess I'm not the only one getting grey hair!) Articles will be done in the same font as this column, while repeat information, such as the BBS and Vendor listings, will be done in a smaller font to save space.

On the topic of feedback, here's some food for thought (received as feedback) from Paul Zibaila II:

*"You really don't **BELONG** to a group unless you can and do contribute and receive something with your fellow members. If you only take you're just a user and not a member. If you are a contributor and don't receive at least personal satisfaction that you are respected and appreciated for your efforts, most people usually lose interest fade away also. Although I expect that there are some who truly are philanthropists."*

## MOTD Information

The OS-9 Users Group, Inc. is a not-for-profit organization, registered and incorporated in the state of Iowa, whose members share an interest in the OS-9 operating system in all of its various forms.

**MOTD** is the official newsletter of the OS-9 Users Group, Inc.

The OS-9 Users Group, Inc. has no affiliation with **Microware** or any other organization.

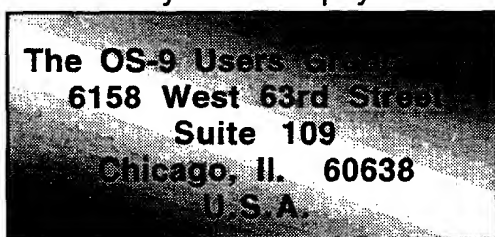
The opinions expressed by the authors of any articles or columns are not necessarily the opinions of the Editor, Publisher, columnist, nor do they reflect the policies of *The OS-9 Users Group, Inc.*

The **MOTD** will be printed a minimum of four times per year.

To receive **MOTD** you must be a member in good standing of *The OS-9 Users Group, Inc.* in accordance to the bylaws.

To become a member in good standing you must pay the yearly dues of \$25.00 US funds (\$30.00 US funds if you live outside the US and Canada) and obey all of the membership rules set forth in the Constitution of The Users Group and the bylaws.

Dues may be made payable to:



Memberships run for one year from the date received by the Users Group. Send a SASE for a membership kit which will include a membership form and information about the Users Group.

Please remember that this is a self help organization, and also a non-profit organization incorporated in the state of Iowa and as such it is directly governed by the laws of that state as well as all federal laws. Accordingly, dues are non-refundable in accordance with both state and federal law.

Reprints or back issues of the **MOTD** are available to members in good standing at the cost of \$1.50 each plus \$0.50 shipping (US funds). Please send a SASE and a list of the issues you wish sent to you.

Here is a short list of current officers:

Position	Name
President	Colin McKay
Executive Vice Pres.	* vacant *
Director	Ed Grasic
Director	Eddie Kuns
Director	Ken Scales
Vice Pres. (Comm.)	Paul Jerkatis
Vice Pres. (OS-9)	Brian Goers
Vice Pres. (OS-9/6809)	Mike Rowen
Secretary	Howard Luckey
Librarian	Zack Sessions
M.O.T.D. Editor	Joel Mathew Hegberg

## MOTD Contributions

Articles, editorials, "letters to the Editor/Board of Directors", personal ads, graphics, or columns may be submitted by using the following means:

E-mail to JoelHegberg@delphi.com, E-mail to 'Sysop' of SandV BBS [(708) 352-0948], E-mail to the OS-9 Users Group os9ug@sandv.chi.il.us or by mail to *The OS-9 Users Group* address in Chicago. All submissions should be in pure ASCII format.

The submission of material does not guarantee publication. All publication of material is subject to review by the Board of Directors and the MOTD Editor, and must not be in conflict with the stated purposes of the Users Group as defined by the constitution and bylaws of the Users Group. The Board of Directors may also establish additional guidelines for acceptance to publication. Submission deadlines are four weeks before actual printing of the **MOTD** issue. *All printed material is subject to nominal editing by the MOTD Editor for clarity.*

Criticism towards making **MOTD** a better publication is welcome. Letters may be addressed to the MOTD Editor and mailed to the Users Group address or sent directly to JoelHegberg@delphi.com. E-Mail can also be sent to the following Delphi members: MITHELEN, CBJ, LUCKYONE, BRIANGOERS, EDDIEKUNS, and COLORSYSTEMS. You may also sent E-mail to os9ug@sandv.chi.il.us.

## MOTD Advertising

Commercial advertising is available in **MOTD**. Please send a SASE for current rates. All ads should be submitted as a camera ready copy. We reserve the right to limit the size and quantity of ads.

**SandV BBS (708) 352-0948**

The SandV BBS is a BBS being maintained by Paul Jerkatis to provide Internet access.

So please do let us know what you think -- your letters and messages are read, appreciated, Grokked in all their fullness (I recently re-read Stranger in a Strange Land by Heinlein), and passed on to the appropriate people.

We also have two new columns this month which we hope you'll find enjoyable. The first column, *The Toolbox*, contains handy little utilities and should also serve as programming examples to those of you learning to program. The second column is from Jim Vestal, called *Entry Level C*.

Anyone with news, programming hints/tips or pretty much anything else related to OS-9 is welcome to submit it to the MOTD. Remember, this is **YOUR NEWSLETTER!** The next issue is due out around the end of May, and will include a report on the Chicago Fest.

#### **Membership Renewals**

Just a quick reminder to check your membership expiry date on the mailing label!

#### **Elections**

Elections will be held in Chicago at the Annual General Meeting on April 29, 1994, to be held at the Chicago Fest. The following positions are open for nominations:

<u>Position</u>	<u>Incumbent</u>	<u>Term</u>
President	Colin McKay	2 years
Executive VP	Vacant	1 year
Director	Ken Scales	3 years

Anyone interested in running for these positions should submit their nomination in writing. Full details on elections are covered in Article IV. of the Bylaws. In summary:

- Individual members in good standing 21 years of age or older may run.
- Nominations must be submitted in writing to the Secretary prior to the meeting.
- Nominations must be signed by the candidate and two nominators who are also members in good standing.

#### **Chicago Fest**

The Fourth Annual "Last" Chicago CoCoFest is scheduled for the weekend of April 29-30, 1994 in Elgin, Illinois. Though officially a fest for users of the Tandy Color Computer 3 (both Disk basic and OS-9 Level II), there is also a growing number of OS-9/68000 personal users at the fest.

The Users Group is pleased to announce that Mr. Kurt Johnson, President of KD Consulting, Inc. will be at the Fest to give a presentation on Sculptor for OS-9 Level II and OS-9/68000, as well as discussing the use of Sculptor at NASA/Kennedy Space Center. A short Q&A session will follow.

Look for the Glenside Color Computer Club ad in this issue for more information. Make your reservations now, because the Fest is sneaking up quickly!

Colin McKay,  
President

## Editor's Log

Once again, we are at the door of another annual Chicago Fest, and the excitement is starting to build. As Colin mentioned, this fest will be very exciting for OS-9'ers, so do try to make arrangements to be there if at all possible. You won't want to miss the Sculptor presentation! If you can make it, please try and stop by our booth and chat with us. We'd love to hear any comments or concerns you may have.

Over the next few months, I have quite a few changes occurring in my life. Foremost is a 270 mile move west to Des Moines, Iowa, where I will be accepting a job at Microware working on the D.A.V.I.D. project. During this transition, Ken Scales will be taking over as Editor-in-Chief of the MOTD until I am able to return to this capacity. I would like to thank Ken in advance for volunteering. Few people have the dedication that he demonstrates (and which I would contend is necessary in editing/publishing a newsletter). I've been acquainted with him for a few years and he's going to do a great job.

Best Wishes,

Joel Mathew Hegberg  
MOTD Editor-in-Chief

## CDL Scripture

King James Version	<3MB Disk Space
Concordance	<300KB RAM Space
Multi-Word Search	Search Limits
User Friendly	Source Code
Context Feature	Encoded Data Files
Automatic Lookup	
Fast (Sub-Second)	Cost \$49.00 US +S/H

## CDL Basic

Simplicity of Basic	C Compatible Fens
Structure of Pascal	Dynamic Mem Bufs
Power of C	Named Constants
Utility of Assembler	Named Variables
Macros	Named Labels
User Functions	Cost:
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Control Structures	\$350.00 US Personal
Pointer Variables	\$99.00 US "LITE"

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*The ultimate editor for OS/9*

Vprint Text Formatter \$62.95  
*A great companion for VED or any editor!*

White's Speedisk \$79.95  
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is also available -- write for a free catalogue.

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## Straight from the Horse's Mouth

Been to a professional sports event lately? Check your ticket, it may have been printed on an OS-9 System! This time we're off to Saskatoon, Saskatchewan, where an OS-9 Level II system is used to help produce the tickets for many professional sports events. This article was written by Curtis Boyle, Data Processing Manager at Mercury Graphics.

### **Mercury Graphics Corp. Sports Ticket Printing**

Mercury Graphics Corp. is a specialty printing plant, with it's core concentration on *Automated Ticket Boarding* (ATB) passes for international airlines (using a magnetic strip technology that it has sole rights to in North America) and sports ticket manufacturing, including *NHL, NBA, AL, NL, NFL, CFL* & many college teams. We still have a commercial division as well that deals with the more traditional manufacture of business forms, including some government work. Mercury Graphics has been in business for almost 42 years, and has always been located in Saskatoon.

*As well as printing tickets under our own name, we also do a lot of sub-contract work for Globe Ticket & Label Co. in the U.S.A. If the back of a Globe ticket says **Lithographed in Canada**, it was printed in our plant. As well, Mercury does a lot of stock printing for Ticketmaster. We currently have two sheet fed presses, a couple of smaller presses, a 4 colour web press, two 8 color web presses, and a seven color flexographic press, as well as equipment for ATB passes, a full bindery department, and a network of Quadra & 8100/80 PowerMacs complete with hi-res scanners & film processors in our Pre-Press department.*

When I joined, the original ticket printing system at McKenzie Ray was using some custom software by a company called *Softix* out of Vancouver, and ran on the *RSTS* operating system on a PDP 11/34. After working with this software for about 4-5 months, I decided that it wasn't flexible enough, nor that easy to use, so I started re-writing it in the PDP's BASIC language. In mid-1989, after programming & running the new system, the PDP had a hardware failure, and it would take 2-3 weeks to get in the replacement boards (we had some spare boards for serial & parallel ports, but this time the Disk controller board blew). I had just gotten into OS-9 at home, with a 512k Tandy Color Computer 3 (CoCo) and a 720K 3.5" disk drive. I also had the Disto 3-in-1 installed on the Super Controller II, giving me a serial port & a parallel port, as well as no-halt floppy drives. I also had an old PBH serial-to-parallel converter left over from my old CoCo 1 days. I brought in this system from home, and it ended up staying for several months. We did get the PDP up & running again, but when my bosses discovered how much cheaper it was to get parts for a CoCo, and how much more we could do with it to drive two printers (without requiring a separate terminal for each printer, by using windows), they decided to get a CoCo system for work itself, and shut the PDP down. They did this in late 1989/early 1990 in several steps.

What we have ended up with is a 1 Meg CoCo 3, with 8 serial ports (4 from a Comm4 board, 2 from the Eliminator by Frank Hogg/Bruce Isted, and 2 based on the Eliminator design built by Bill Nobel), 3 parallel ports (1 from the Eliminator, 2 from Bill), MPI (bus extender), Real time clock, 40 & 65 Meg hard drives, and 360K (5.25") and 720K (3.5") floppies. It also sports a 6309 chip, and one of the latest versions of *NitrOS-9*, as it is one of the main machines it was developed on, especially in it's early stages. Mercury graphics had been using an old HP-3000 16 bit/stack based mini computer for accounting, production & ticket printing, but the machine was pushed to it's limits & responding very slowly to users because of it's workload. To help alleviate this we switched the ticket printing to the CoCo (now running 3 parallel line printers, and a 20 page per minute laser on either serial or parallel, depending on how busy the line printers are). Two of them are 300 line per minute *Printronix P300* printers, and the 3rd is a *Mannesmann Tally MT661*, which is rated at 600 lines per minute in Data Processing mode, and 800 lines per minute in

draft mode. Since the accounting & production is still done on the HP-3000, we retired the Comm4 board, and use the 4 remaining serial ports to hook up the laser, a terminal (used for seating manifest entry), a 386DX PC (for manifest transfers from Hi-density disks, or as a 2nd terminal on the CoCo), and a link to a piece of hardware from the phone company that tracks all phone calls going in or out of our building. This is all logged by the CoCo as a constantly running background task.

OS-9 Level II is used because of it's multi-tasking/multi-user power, as seating manifests can be entered from terminals by other users, while the user at the CoCo itself can keep track of the phone logger, and run up to 4 printers at once, as well as do other work, thanks to OS-9's windowing system. We routinely run 11-15 processes at once between windows & terminals, and sometimes more than 20.

Most of the software is custom written, or PD software that has been modified by ourselves. Some of it we have released to the public, if it was considered to be useful to others (examples include *MSTMON*, for saving memory while keeping track of multiple users on multiple serial ports, the new *PROC* command that keeps track of RUNB & BASIC09 programs as well as the normal C/ML programs, and the new *ShellPlus V2.2a*, with command history. The actual manifest checking & ticket printing programs are written in BASIC09, because of the speed with which they can be entered, with some machine language subroutine modules for doing some calculations for the laser printer. There are plans to add more laser printers (32 page per minute versions), and possibly a new 6682 model of the Mannesmann Tally, which is capable of up to 1400 lines per minute in draft mode, 800-900 lines per minute in Data processing mode. We will be adding more parallel ports to run these. Sometime in the future we may also upgrade to an OSK or OS-9000 system, but that probably won't be for at least 6 months, if not longer.

*"OS-9 Level II is used because of it's multi-tasking/multi-user power... We routinely run 11-15 processes at once between windows & terminals, and sometimes more than 20."*

We use quite a few PD programs regularly in our work. We use *LHA 2.11C* to archive up our manifests after we are done with them (they are kept around in case printed tickets get damaged in transit, or a customer loses them), and both *LHA* and *UNZIP v4.5C* to extract manifests that are customer supplied. Bruce Isted's *STREAM* backup program is used to backup up the hard drives. Plus many of the little utilities like *DED*, *MMAP*, and others that most CoCo OS-9'ers use.

We haven't hit too many limitations in CoCo OS-9, except for running out of system map space when running too many processes (alleviated somewhat by NitrOS-9 & removing VDGINT from the boot file), and for speed when the system is really bogged down (running 3 or 4 printers while doing an UNZIP extract or LHA create, or 9600 baud manifest download from the PC at the same time). NitrOS-9 has helped a lot with the speed deficiencies, as has upgrading the clock crystal on the CoCo motherboard so that the 6309 runs at a true 2 MHz instead of the 1.78 MHz speed that it originally was designed for. If one is just entering in manifests, while running two parallel line printers, it would appear to be running about the same speed as normal OS-9 with just an editor running.

The worst problem we have had is expandability (with just 4 slots in the Multipak Interface, a limited number of pre-made I/O boards to choose from amongst vendors), and Tandy's discontinuation of the CoCo itself. It is getting harder to get parts for it, though it is still fairly easy to find things like floppy drives. Hard drives, since they are of the MFM type, are a little harder to find for the Eliminator as well. Software support is better, as there are vendors still out there, and a lot of PD stuff is still coming out.

SAMPLES OF TICKETS THAT HAVE BEEN PRINTED ON THE COCO:National Hockey League

Vancouver Canucks  
Edmonton Oilers  
Calgary Flames  
Ottawa Senators  
San Jose Sharks  
Los Angeles Kings  
Florida Panthers  
Anaheim Mighty Ducks (mostly  
setup, a little of the lasering.  
Most lasering was sub-contracted  
out due to time restraints.)  
Dallas Stars  
Boston Bruins  
Buffalo Sabres  
Hartford Whalers

American & National League Baseball

Atlanta Braves  
Pittsburgh Pirates  
Cincinnati Reds  
Some of Minnesota Twins

Professional Boxing

Tyson/Riddock

National Basketball Association

Atlanta Hawks  
Phoenix Suns (1994 playoffs)  
Los Angeles Lakers  
Golden State Warriors  
Charlotte Hornets  
Orlando Magic  
New Jersey Nets  
Utah Jazz  
Portland Trailblazers  
(Portland, Golden State & Charlotte had  
over 1/2 of the lasering done by sub-  
contract, manifests supplied pre-  
formatted from the CoCo, due to time  
restraints)

Canadian Football League

Several Grey Cups  
Saskatchewan Roughriders  
Ottawa Roughriders  
Some of Edmonton Eskimos

NASCAR

Charlotte Motor Speedway  
Atlanta International Raceway  
Watkins Glen

Also a lot of semi-pro, minor league (including *Michael Jordan's* baseball team) and college teams. We also print the ticket stock for more teams than listed above... I have only listed those which had computerization of the forms done by the CoCo.

Aside from sports, we also do a lot of tickets for theater companies in the US and Canada as well.

About the Author

Curtis Boyle is the Data Processing Manager at Mercury Graphics Corp. in Saskatoon, SK, Canada. He has been in the ticket printing business since May of 1988, first at McKenzie Ray Tickets, and then at Mercury since they bought out McKenzie Ray in late 1992. He has been using OS-9 since about 1988 on a CoCo 3 (and later, TC-9) at home, and is one of the authors of NitroOS-9.

Curtis Boyle, Data Processing Manager, Mercury Graphics Corp., 1438 Fletcher Road, SASKATOON SK S7M 5T2, Canada.

Correction

In last issue's column, the label numbering on the OS-9000 based *ImmunoAssay System* diagram was inadvertently cut off during printing:

1. Width 39", Height 18.5", Depth 24"
2. 24 Resident Assays

3. Integrated Reagent Packs
  4. Primary Tube Sampling
  5. Unique Sample Trays
  6. Ultrasonic Primary Pipette
  7. Dual Resolution Diluter Pump
  8. Probe Wash Station
  9. Reaction Vessel Loader
    - A. Incubation Module
    - B. Wash/Read Module Magnetic particle separator & chemiluminescent Detector
    - C. Automatic Waste Disposal Self-sealing on-board waste container
- 

## Entry Level C

*by Jim Vestal*

Welcome to the new column, *Entry Level C*. This series of articles is targeted for the programmer who is relatively new to the C language, though you don't have to be a beginner to learn from this series. This first installment will focus on keyboard input in C using OS-9.

Standard C only includes the following functions for input:

<code>getc()</code>	- input characters from file path
<code>getchar()</code>	- a macro of the standard <code>getc()</code> for stdin
<code>gets()</code>	- reads a line of text from stdin
<code>fgets()</code>	- similar to <code>gets()</code> but allows input from any file path and has provisions to protect the string array from being overflowed
<code>fscanf()</code>	- reads from file path formatted numerical data or series of characters into address passed to it
<code>scanf()</code>	- similar to <code>fscanf()</code> but for stdin

Due to their nature, all input and output are buffered using these standard C routines. One can use `fflush()` to flush (or clear) the buffer. One side effect of buffered I/O is a return keypress is needed even for single character inputs, this makes it hard to program a routine that asks for a single key to be pressed. OS-9 (and Unix) has a provision to overcome this limitation, a system call function called `read()` that can be used to read from a path without being buffered.

I created a function using `read()` called `getche()` that returns the value of the single character input from stdin. My `getche()` is compatible with Borland's Turbo C's "conio.h" function by the same name. Because `scanf()` isn't the most friendly function to use for inputting numerical data I wrote 2 other functions called `input_d()` and `input_i()`. Both accept a string that is used to prompt the user to enter a value and both use `fgets()` to input the character information which is converted to either an *integer* or a *double* using `atoi()` or `atof()`, respectively.

The final function I wrote is called `prompt_c()` which is used to prompt the user for a single key input. The single key is returned after being converted to a lowercase letter. This can be used in a menu function or any function where a single key needs to be checked.

If you any comments, questions, or suggestions for topics for future articles let me know. You can reach me via email at [jvestal@calweb.com](mailto:jvestal@calweb.com) or [jvestal@delphi.com](mailto:jvestal@delphi.com).



```

getche()
{
    char keyin;

    fflush(stdout);
    read(0,&keyin,1);
    return(keyin);
} /* end getche */

double input_d(string)
char *string;
{
    char instr[20];

    printf("%s",string);
    fgets(instr,20,stdin);
    return (atof(instr));
} /* end input_d */

```

```

int input_i(string)
char *string;
{
    char instr[20];

    printf("%s",string);
    fgets(instr,20,stdin);
    return (atoi(instr));
} /* end input_i */

char prompt_c(string)
char *string;
{
    char key=0;

    printf("%s",string);
    key=getche();
    key=tolower(key);
    return (key);
} /* end prompt_c */

```

---

"Sculptor was  
extremely easy to learn.  
We created usable code in the first week.  
All we had to do  
was build the database  
and Sculptor generated basic code for us."

Jim Patterson

Software Applications Engineer/Confertech International  
Conference calling system running Sculptor on OS-9

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Call for information and free full-system demo. And see our presentation at CoCoFest '95.

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Sculptor version  
available for you!  
Call for details.

## The Toolbox

Welcome to The Toolbox! This column will contain short utilities and programs that you might find handy in your day-to-day use of OS-9. Submissions in C, Basic, or Assembler are welcome!

DataMod will convert a file to a data module in memory. This version is for OS-9/68000. An OS-9/6809 version of datamod (by a different author) is available from most OS-9 BBS's.

```
/* DataMod
Creates data modules from files.
DataMod (C) 1994 Northern Xposure v1.1
Function: Copies a file to a data module.
Syntax : datamod [-?] ! [filename modulename]
Released by Northern Xposure for no-charge distribution.
To compile: cc datamod.c -i -x -t=/r0
v1.1 20 March 1995 - cleaned-up version for MOTD
v1.0 4 May 1994 - first release
*/
```

```
#include <stdio.h>
#include <modes.h>
#include <module.h>
```

```
extern char *_mkdata_module();
extern char *modlink();
```

```
main(argc,argv)
int argc;
char *argv[];
{
    if(argc != 3)
        usage();
    else
        make_data(argv[1], argv[2]);
}
```

```
make_data(file, module)
char *file;
char *module;
{
    int fpath;
    int fsize;

    char *modstart;

    modstart = modlink(module, 0x0400);
    if (modstart != (char *)-1) {
        munlink(module);
        exit(_errmsg(0, "Data module '%s' already exists.\n", module));
    }
}
```

## CDL BASIC

### for OS9/68000

#### A TRUE BASIC COMPILER

CDL BASIC is the only native (68000) code BASIC compiler for use with the OS-9/68000 Operating System.

#### IF C = HARD THEN GOTO CDL BASIC

The fine print: CDL BASIC includes all MC68000 op codes. CDL BASIC supports structured programming and WHILE/DO, LOOP, REPEAT/UNTIL, and EXITIF. Variables are named and include: BOOLEAN, BYTE, SHORT, LONG, REAL, STRING, and POINTER. The final result can be a mixture of CDL BASIC, assembler, and C! Output code is generated in line for maximum speed. No run-time support is required. CDL BASIC is 50 times faster than Basic. CDL BASIC is unlimited unlike interpreters and "I-code" compilers. CDL BASIC can be used wherever ordinary Basics have been used and is equally at home in applications such as I/O drivers, industrial control, system utilities, and ANY other application where C or assembly is used. CDL BASIC allows the use of powerful MACROS. CDL BASIC compiler's output includes Basic statements as comments. CDL BASIC is extendable! CDL BASIC interfaces to C libraries! PLUS MUCH MORE!

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A demo disk is available. Call or write for more information.  
(List Computer make, disk size and format etc.)

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FAX: 315/469-8537 ~ PHONE: 315/469-7364

```
if((fpath=open(file, S_IREAD)) == -1)
    exit(_errmsg(0, "Couldn't open '%s'.\n", file));

fsize = _gs_size(fpath);
if(fsize == -1)
    exit(_errmsg(0, "'%s' is invalid or not RBF.\n", file));
else if(fsize == 0)
    exit(_errmsg(0, "'%s' is a zero-length file.\n", file));

if ((char *)-1 == _mkdata_module(module, fsize, 0x8080, 0x777))
    exit(_errmsg(0, "Couldn't make data module '%s'.\n", module));

modstart = modlink(module, 0x0400);

if (modstart == (char *)-1)
    exit(_errmsg(0, "modlink() failed.\n"));

if (fsize != read(fpath, modstart+0x34, fsize))
    exit(_errmsg(0, "Error reading '%s' to data module.\n", file));

if (-1 == _setcrc(modstart))
    exit(_errmsg(0, "Error updating data module CRC.\n"));

munlink(modstart);

printf("\n'%s' copied to data module '%s'.\n", file, module);
printf("Use 'save %s [-f=filename]' to save the module.\n", module);
}

usage()
{
    fprintf(stderr, "\nDataMod (C) 1995 Northern Xposure v1.1\n\n");
    fprintf(stderr, "Function: Copies a file to a data module.\n");
    fprintf(stderr, "Syntax : datamod [-?] | [filename modulename]\n\n");
    fprintf(stderr, "Released by Northern Xposure for no-charge\n");
    fprintf(stderr, "distribution.");
}
```

# OS-9 Users Group

The *Simplicity* of Basic...

The **STRUCTURE** of Pascal...

The **POWER** of C...

The **UTILITY** of Assembler...

Introducing...

**CDL BASIC<sup>tm</sup>** for OS9/68000\*

### **Check these features!**

- \* Macro Capability
- \* Pointer Variables
- \* Conditional Compilation
- \* C Compatible Functions
- \* Dynamic Memory Buffers
- \* Named Constants
- \* Named Variables
- \* Named Labels
- \* User Defined Functions
- \* Intermixed Assembler
- \* Alias Variables
- \* Command Line Interface
- \* USE (include) Function
- \* User Defined Data Types
- \* Global and Local Labels and Variables
- \* 48 Built-in Functions
- \* 47 Statements
- \* 13 Compiler Directives
- \* Compiles to Native Code
- \* English Language Error Messages
- \* 7 Data Types
- \* Pascal Style Control Structures

### **Full Spectrum Usage!**

**CDL Basic** is well suited for the full spectrum of applications ranging from simple applications to complex applications to systems software and even I/O drivers. The CDL Compiler itself was written in CDL Basic! The compiler features ease of use and compiles very quickly. No more cryptic error messages... all compile errors are reported in plain English. The level of complexity is controlled by the user I.E. a person familiar only with basic Basic can write useful programs right away and move into the more advanced features as desired when more familiar with the compiler's features. The advantage is that one does not need to make use of all the advanced features to get started. The programmer can write programs that are very structured ala Pascal or may opt for the more traditional Basic or assembler style using GOTO's and labels or may choose to mix the two styles.

### **Macros and Functions**

The user may write macros or use macros from a library. The macros may be written in assembler or Basic or any combination for maximum utility and efficiency. The same applies to user written functions. The calling sequence and return sequence of the functions are compatible with C. This means you can use C functions or even write functions for C.

### **Pointers and Buffers**

These are two of the more advanced and powerful features of the language and are similar in function to C pointers and the MALLOC functions in C but are simpler to use. There is also a set of I/O operations for reading and writing data to/from memory buffers.

### **Embedded Systems**

**CDL Basic** is especially well suited for embedded systems use. Traditionally, embedded systems programmers have preferred Basic over C and assembler and now have available to them a Basic with the speed, power, and utility of assembler and C.

### **Pascal Style Control Structures**

For the ultimate in structured programming tools, **CDL Basic** provides a complete set of control structures:

IF/THEN/ELSE/ENDIF  
WHILE/DO/ENDWHILE  
REPEAT/UNTIL  
LOOP/EXITIF/ENDLOOP  
FOR/TO/NEXT

### **Wow! Is it fast!**

**CDL Basic** compiles to native assembler code providing for lightning speed and efficiency.

### **Intermixed Assembler**

The programmer may include assembler code at any point in the program without need for any declaration of any kind.

### **Alias Variables**

The Programmer can treat the same physical memory as two or more different data types. For example, a long integer variable can also be referenced as an array of 4 bytes.

For more information call or write:

**Computer Design Lab**  
RR 1 Box 36  
Rhineland, MO 65069  
(314) 236-4373

**Computer Design Lab**

## The OS-9 Users Group Sourcebook

*by Chris Perrault*

The Users Group is undertaking a project to establish a long-overdue centralized OS-9 information source. The purpose of this project is to keep the OS-9 community together by establishing a number of databases holding information ranging from OS-9 Users to Bulletin Board Systems to Vendors. This information will be made available to both individual and corporate Users Group members for a nominal charge. The coordinator for this project is Chris Perrault.

### Project Overview

We want to help keep people up to date on what is happening in the OS-9 world. They will benefit by receiving mailings, catalogues and other information which they would otherwise miss out on. This especially applies to those users who don't have the benefit of a modem and online services! If you know any OS-9 users, perhaps local, who may be interested, please feel free to pass on a copy of the information form below. You do not have to join the Users Group, volunteer, or buy anything to be included! This is being done as a service, not only to the users, but to anyone involved in the OS-9 world.

### Sourcebook Information

Over the next few months, information will be collected in the following areas:

**Individuals:** This will be a listing of any and all individuals interested in OS-9. Please fill out and return the form at the end of this article.

**Businesses:** Let us know who you are, and what you carry! We often get enquiries about the existence of specific hardware and software packages. Listing is available to all businesses that support OS-9. Please include a copy of your catalogue.

**Local Clubs and User Groups:** Where are you located, how often do you meet, and how can you be contacted?

**Publications:** Any other sources of information on OS-9.

**Bulletin Board Systems and Internet Sites:** Any sites that have OS-9 programs or information can be listed here. A general outline of what is carried on the board should be included.

### Live Conference Support

If you are a subscriber to the Delphi Internet Service, you will also be able to get LIVE online information in an upcoming edition of the 'OS-9 Late Night' conference. This conference will take place on Monday April 17th at 10:00 PM Eastern time. The conference will be a discussion of many of the topics covered in this article, and it will dig a little deeper into the project through a question and answer session. This will be a great opportunity to ask any questions you may have or perhaps offer some suggestions of your own regarding this or other projects. HOWEVER, even if you don't have the benefit of a modem or online service, you can still receive the same help through the OS-9 Users Group US Mail address below.

### Coming Next Issue

Stay tuned for the next edition of the OS-9 Users Group MOTD. This series will continue with the entry form requesting the information needed for the bulletin board system database. If you are a SYSOP or a user who knows of any OS-9 related BBS, you will want to keep your eyes open for the next edition of the MOTD.

Contacting the Sourcebook

You can send all your information *PLUS* any suggestions, comments, or questions regarding the OS-9 User's Group Sourcebook to any of the following addresses:

Internet/Delphi: Thetaurus@Delphi.com

Mail: **OS-9 UG Sourcebook**  
c/o The OS-9 User's Group, Inc.  
6158 West 63rd Street Suite 109  
Chicago, IL 60638 - USA

OS-9 Sourcebook Information Form

Name: \_\_\_\_\_

Business: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Country: \_\_\_\_\_ Telephone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Would you like information on joining the OS-9 Users Group? ☐ Already a Member! ☐ Yes ☐ No

Can this information be passed to OS-9 vendors? ☐ Yes ☐ No

Are you available to act as a volunteer for OS-9 projects from time to time? (This isn't a commitment.)  
☐ Yes ☐ No

Please indicate your area(s) of interest:

☐ OS-9/6809 ☐ OS-9/68000 ☐ OS-9000  
☐ Programming ☐ Hardware ☐ Other: \_\_\_\_\_

You use OS-9 primarily for what purpose:

☐ Personal use ☐ Industrial use ☐ Both

Please describe briefly your OS-9 computer system(s):

Please describe briefly your computer and OS-9 experience:

Please describe your OS-9 interests (things you would like to see the UG do, or see in the MOTD), or list any other questions or comments:

## Vendor Listings

The **MOTD** carries vendor names, addresses, and phone numbers as a service to both our readers and OS-9 vendors. If you are a vendor of OS-9 related hardware or software, you may request to be listed by simply sending a letter to the editor at the Users Group address. There is no charge for being listed in this area. (Vendors who are members are underlined.)

<u>Vendor Name</u>	<u>Address</u>	<u>Phone Number</u>
<b><u>AniMajik Productions-Software</u></b>	<b><u>4650 Cahuengo Blvd; Ste #7; Toluca Lake, CA 91602</u></b>	<b><u>(818) 761-4135</u></b>
Ark Systems USA	P.O. Box 23; Santa Clara, CA 95052	(408) 244-5358
<b><u>Blackhawk Enterprises</u></b>	<b><u>P.O. Box 10552; Enid, OK 73706-0552</u></b>	<b><u>(405) 234-2347</u></b>
<b><u>Bob van der Poel Software</u></b>	<b><u>P.O. Box 355; Porthill, ID 83853 or</u></b> <b><u>P.O. Box 57; Wynndel, BC, Canada V0B 2N0</u></b>	<b><u>(604) 866-5772</u></b>
<b><u>Burke &amp; Burke</u></b>	<b><u>P.O. Box 733; Maple Valley, WA 98038</u></b>	<b><u>(206) 432-1814</u></b>
<b><u>ColorSystems</u></b>	<b><u>P.O. Box 540; Castle Hayne, NC 28249</u></b>	<b><u>(919) 675-1706</u></b>
Computer Design Services	2550 Sandy Plains Road; Marietta, GA 30066	(404) 973-2170
<b><u>CoNect</u></b>	<b><u>449 South 90th Street; Milwaukee, WI 53214</u></b>	<b><u>(414) 258-2989</u></b>
<b><u>Delmar</u></b>	<b><u>P.O. Box 78; 5238 Summit Bridge Road; Middleton, DE 19709</u></b>	<b><u>(302) 378-2555</u></b>
Disto	1710 Depatie; St. Laurent, Quebec, Canada H4L 4A8	(514) 747-4851
<b><u>Farna Systems PB</u></b>	<b><u>P.O. Box 321; Warner Robins, GA 31099-0321</u></b>	<b><u>(912) 328-7859</u></b>
Frank Hogg Laboratories	204 Windemere Road; Syracuse, NY 13205	(315) 469-7364
<b><u>Hawksoft</u></b>	<b><u>244 S. Randall Road; Elgin, IL 60123</u></b>	<b><u>(708) 742-3084</u></b>
The KD Consulting Group, Inc.	3880 Citation Drive; Indian Springs, OH 45014	(800) 837-1619
Ken-Ton	CONTACT FARNA SYSTEMS	
Microware Systems Corporation	1900 N.W. 114th Street; Des Moines, IA 50322	(515) 224-1929
<b><u>Northern Xposure</u></b>	<b><u>7 Greenboro Cres.; Ottawa, Ontario, Canada K1T 1W6</u></b>	<b><u>(613) 736-0329</u></b>
'09 Online	221 E. 17th #31; Marysville, CA 95901	(916) 734-4264
Peripheral Technologies	1480 Terrell Mill Road #870; Marietta, GA 30067	(404) 973-2156
<b><u>StrongWare</u></b>	<b><u>P.O. Box 361; Matthews, IN 42957</u></b>	
<b><u>Sub-Etha Software</u></b>	<b><u>P.O. Box 152442; Lufkin TX 75915 or</u></b> <b><u>936 North Twelfth Street; DeKalb, IL 60115-2516</u></b>	<b><u>(815) 748-6638</u></b>
<b><u>Windsor Consulting Group</u></b>	<b><u>2014 Cherokee Pkwy, Suite J; Louisville, KY 40204</u></b>	<b><u>(502) 454-0054</u></b>



## BBS Listings



<u>BBS Name</u>	<u>Location</u>	<u>Baud Rates</u>	<u>Phone Number</u>
Applied OS-9 BBS	Florida	300-2400	(407) 327-6346
Atlanta Computer Society BBS	Atlanta, GA.	300-2400	(404) 636-2991
ChiCoCo	Chicago, Il.	300-2400	(312) 735-3355
Citadel BBS	Pennsylvania	300-9600	(717) 871-9543
Color Galaxy Milky Way	California	300-14,400	(415) 883-0696
Crystal Palace	Michigan	300-14,400	(616) 979-1858
Cup of CoCo	Carpentersville, Il.	300-2400	(708) 428-0436
Erie County CoCo Club	Buffalo, NY	300-2400	(716) 649-1368
Golden CoCo BBS	Houston, TX	300-2400	(713) 941-1542

KZIN BBS	Surrey, BC, Canada	300-2400	(604) 589-5545
Ocean Beach BBS	San Diego, CA	300-14,400	(619) 224-4878
Rainbow Connection	New Jersey	300-14,400	(201) 967-1061
SandV	LaGrange Park, IL	300-9600	(708) 352-0948
Southern Alberta Bulletin	Alberta, Canada	300-2400	(403) 329-6438

**OCN (OS-9 Community Network) BBS sites:**

Dave Spicer	Ft. Rucker, AL	300-9600	(205) 598-2100
Mark Johnson	Long View, WA.	300-2400	(206) 425-5804
Newton White	Atlanta, GA.	300-14,400	(404) 636-2991
Chas Stokes	Coraopolis, PA.	300-9600	(412) 264-9787
Brian Steward	Jacksonville, FL.	1200-16,800	(904) 771-4779
Kerry Kowalski	Whitelaw, WI.	300-2400	(414) 684-4115
Ken Patience	Toronto, ON, Canada	300-9600	(416) 469-0611
Harold Kistner	Springfield, MO.	300-14,400	(417) 887-6048
Dennis Mott	Spokane, WA.	300-2400	(509) 325-6787
Tim Jones	Austin, TX.	300-9600	(512) 280-6578
Ken Flanagan	Prince George, BC, Canada	300-9600	(604) 564-8869
Jim Sartain	Minneapolis, MN.	300-2400	(612) 869-7795
John Reece	San Diego, CA.	300-2400	(619) 272-3643
Terry Goode	Huston, TX.	300-2400	(713) 941-1542
Doug James	Midlothian, VA.	300-2400	(804) 744-9260
John Wight	Honolulu, HI.	300-9600	(808) 735-3776
Ed Jones	Mobile, AL.	300-2400	(205) 341-1616
Norman Rheume	Mobile, AL.	300-2400	(205) 661-5298

**OS-9 Periodicals***by Ed Jones*

<u>PUBLICATION</u>	<u>PUBLISHER</u>	<u>PRICE</u>	<u>ADDRESS</u>
The International OS-9 Underground	Alan Sheltra	\$18 for 12 issues \$23 Canada	Fat Cat Publications, 4650 Cahuenga Blvd. Suite #7, Toluca Lake, CA, 91602
The World of 68' Micros	Farna Systems	\$23 for 8 issues \$30 Canada	Farna Systems, P.O. Box 321, Warner Robins, GA, 31099-0321
OS-9 International	European Forum for OS-9 (EFO)		EFO, P.O. Box CH-8606 Greifensee, Switzerland (email: os9int@effo.ch)
The Upgrade Diskletter	MI&CC	\$16 for 6-8 issues \$19 Canada	The Upgrade, 1328 48th Street, Des Moines, IA, 50311
MicroDisk	Farna Systems	\$40 for 8 issues \$44 Canada	Farna Systems, P.O. Box 321, Warner Robins, GA, 31099-0321
MOTD	OS-9 Users Group	\$25 USA & Canada \$30 all others	OS-9 Users Group, Inc., 6158 W. 63rd Street, Suite 109, Chicago, IL, 60638
OS-9 Newsletter	Bellingham OS9UG	\$10 for 12 issues	OS-9 Newsletter, 3404 Illinois Lane, Bellingham, WA, 98226-4238
CoCo 1-2-3	Glenside CoCo	\$15 for 6 issues	Glenside CoCo Club, RR#2, Box 67, Forrest, IL, 61741-9629



-- Press Release --

## Glenside to Sponsor Fourth Annual "Last" Chicago CoCoFest!

Here are the 5 "W's":

WHO? The Glenside Color Computer Club of Illinois presents  
WHAT? The Fourth Annual "Last" Chicago CoCoFEST!  
WHEN? April 29th & 30th, 1995 (Sat. 10am-6pm; Sun 10am-4pm)  
WHERE? HOLIDAY INN ELGIN (A Holidome Indoor Recreation Center)  
345 W. River Road (A city block from I-90 & IL-31S)  
Elgin, Illinois (Same great location as last year!)  
Overnight room rate: \$55.00 (plus 10% tax)  
Call 1-708-695-5000 for reservations.  
Be sure to ask for the "Glenside" or "CoCoFEST!" rate.

**>>>>> YOU MUST REGISTER UNDER COCOFEST TO GET THIS RATE <<<<<**

WHY? A. To provide Vendor support to the CoCo Community  
B. To provide Community support to the CoCo Vendors  
C. To provide educational support to new users  
D. TO HAVE AN OUTRAGEOUSLY GOOD TIME!!!!

And now, the "H" word:

HOW MUCH? Admission:  
\$8.00 at the door, 2-day pass  
\$5.00 at the door, 1-day pass

Advance ticket sales:  
\$5.00 + SASE for the whole show, or  
\$5.00 + \$0.50 postage & handling  
*Children 8 and under are FREE*

Contact: George Schneeweiss, Treasurer  
Glenside Color Computer Club  
RR#2 Box 67  
Forrest, IL. 61741-9629

For further information, general or exhibitor, contact:  
Tony Podraza, Fest Chairman  
708-428-3576, Voice  
708-428-0436, BBS